



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,036	11/17/2003	Christianna R. Jackson	FGT 1854 PA	1035
28549	7590	12/15/2005	EXAMINER	
KEVIN G. MIERZWA ARTZ & ARTZ, P.C. 28333 TELEGRAPH ROAD, SUITE 250 SOUTHFIELD, MI 48034			ILAN, RUTH	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/707,036	<b>Applicant(s)</b> JACKSON ET AL.	
	<b>Examiner</b> Ruth Ilan	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/12/03</u> | 6) <input type="checkbox"/> Other: ____  |

### **DETAILED ACTION**

1. The title includes the "An improved". This is objected to.

#### ***Claim Objections***

2. Claim 9 is objected to because of the following informalities: Claim 9 depends from claim 7. It appears that based on the language of the claim and its placement, it should depend from 8. For the purposes of examination it will be assumed that claim 9 is intended to depend from claim 8. Appropriate correction is required.

#### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second chamber that is smaller than the first chamber must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

Art Unit: 3616

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 18 "said second chamber" lacks antecedent basis.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-6, 8-13 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumagai et al. (US 2003/0160433 A1.) Kumagai et al. teaches a side airbag that enhances thorax protection and includes a first (1b) and second (1a) chamber which have first and second gas volumes that are separate (see par. [0017].)

Art Unit: 3616

The second chamber is a pelvis pushing chamber and the first chamber is a thorax protecting chamber, and the second chamber is inflated at a higher pressure (see para. [0022]), and as such is stiffer. As shown in Figure 2a the second chamber is smaller than the first chamber. Also taught is an inflator (3) and an inflator manifold (4) with at least one first and second opening (4b, 4a) for supplying a first and second gas volume to each of the chambers, respectively. The second opening (4a) is sized larger than the first opening (4b – see para. [0022].) Regarding claim 8, the air bag of Kumagai has at least one panel “configured for defining” the two portions, since Kumagai teaches (in para. [0017] that the airbag is made from a sheet-like material formed into a bag shape, which as such defines chambers, since it surrounds the outside of the airbag, and additionally, the at least one panel can include the panel that is a separator (2.)

Claims 1-5, 7-12, 14 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tanase et al. (WO 02100690- please note that the examiner is relying on US 2004/0021304 A1 for translation purposes.) Tanase et al. teaches a side air bag (Figure 17) including first and second chambers (3113a, 3113b) which have first and second gas volumes that are separate (by seam 3114.) As shown in Figure 17, the second chamber is smaller than the first chamber. Also taught is an inflator manifold (3116) with at least one first and second opening ((3116a, 3116b.) The second openings are greater in quantity than the first openings. Tanase et al. teaches that there are pressure differences between the upper and lower chambers, (see paragraph [0123 and 0124] of 2004/0021304.) Inherently, since the number of apertures leading to the bottom chamber is greater, and the bottom

Art Unit: 3616

chamber is smaller, the airflow into, and pressure in the bottom chamber will be greater than the pressure in the top chamber, and as such is stiffer. Alternately, the Examiner takes Official Notice that it is known with side air bags mounted in seats to supply pressure to the top and bottom chambers such that bottom chamber is more highly pressurized than the top, and as such stiffer, so that the side airbag protects the occupant appropriately based on the biomechanics of the thorax and pelvis. Acker, US 6,349,964, as cited by the Applicant, is evidence that such a distribution is well known. It would have been obvious to one having ordinary skill in the art at the time of the invention, to pressurize the bottom and top chambers of Tanase et al. in the claimed manner, in order to provide for a gentler thorax pressure so as to protect the more delicate thorax region of the occupant, and as such the bottom chamber is stiffer than the top chamber. Regarding claim 8, the air bag of Tanase et al. has at least one panel "configured for defining" the two portions, since in conjunction with the seam the outside panel of the air bag into a bag shape, which as such defines chambers, since it surrounds the outside of the airbag and is separated into two chambers by the seam.

8. Claims 1-5, and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Acker et al. (US 6,349,964.) Acker et al. teaches a side airbag that enhances thorax protection and includes a first (20) and second (22) chamber which have first and second gas volumes that are separate (see col. 3, line 50) The second chamber is a pelvis pushing chamber and the first chamber is a thorax protecting chamber, and the second chamber is inflated at a higher pressure (see col. 2, lines 3-12) which makes it stiffer than the first chamber. As shown in Figure 1 the second chamber is smaller than

Art Unit: 3616

the first chamber. Also taught is an inflator (36) and an inflator manifold (30) with at least one first and second opening (42, 44) for supplying a first and second gas volume to each of the chambers, respectively. Regarding claim 8, the air bag of Acker et al. has at least one panel "configured for defining" the two portions, since Acker et al. that the airbag is made from a sheet-like material formed into a bag shape, which as such defines chambers, since it surrounds the outside of the airbag and is separated into two chambers by the seam.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai et al. (US 2003/0160433) in view of Wipasuramonton et al. (US 6,270,113 B1.) Kumagai et al. is discussed above, and for those elements not discussed includes an inner panel (2) that separates the upper and lower chambers. Kumagai et al. fails to disclose the details of the outer wall airbag construction, that is does not specifically indicate that the outside airbag is formed from first and second outer panels.

Wipasuramonton et al. teaches that it is equivalently contemplated that two panels or a single panel can be used to form a side air bag (see col. 2, line 24.) It would have been obvious to one having ordinary skill in the art at the time of the invention to construct the air bag of Kumagai et al. from two outer panels, since Wipasuramonton et al. teaches

Art Unit: 3616

that such a construction is a well known equivalent of a single panel, and additionally, the use of two panels makes it easier to construct the air bag from smaller stock material.

***Conclusion***

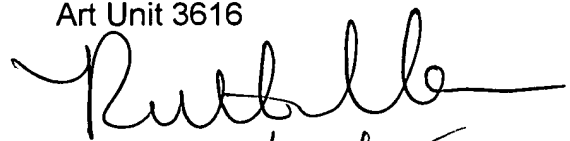
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Weir et al. teaches forming a side air bag with an interior panel from one piece of material. Kurimoto et al., Kumagai et al. ('742), and Steimke et al. teach two chamber side airbags with pressure and size distributions of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 571-272-6673. The examiner can normally be reached on Monday-Friday, 8:30-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth Ilan

Primary Examiner

Art Unit 3616



12/12/05

RI

12/12/05